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ABSTRACT

This document presents the Secretary of Education's personal concept of a sound secondary school core curriculum. It is called "James Madison High School" in honor of President James Madison and his strong views that the people, in order to govern properly, must arm themselves with knowledge. The theoretical curriculum consists of four years of English, and three years each of social studies, mathematics, and science, two years each of foreign language and physical education, and a half-year each of art and music. A brief discussion is offered on the desirability of a curriculum that makes available a shared body of knowledge and skills, a common language of ideas, and a common moral and intellectual discipline. A chart describing the four-year plan of the program shows the number of years required for each core subject and the names of the courses that fulfill them. To demonstrate the flexibility of the program, sample schedules for three students pursuing different goals are outlined. Profiles of seven exemplary high school programs provide an insight into what is currently being accomplished with rigorous core curriculums. The profiled schools, each serving students of diverse backgrounds, are: (1) A. Philip Randolph Campus High School (New York); (2) CAL High School (Iowa); (3) James A. Garfield High School (California); (4) Shawnee Mission South High School (Kansas); (5) Portland High School (Maine); (6) Xavier Prep School (Louisiana); and (7) Wayland High School (Massachusetts). (JD)

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JAMES MADISON HIGH SCHOOL

*A Curriculum For
American Students*

William J. Bennett
U.S. Secretary of Education

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JAMES MADISON HIGH SCHOOL

*A Curriculum For
American Students*

William J. Bennett, Secretary
United States Department of Education
December 1987

*A popular Government, without popular information,
or the means of acquiring it, is but a Prologue
to a Farce or a Tragedy; or, perhaps both. Knowledge
will forever govern ignorance: And a people who mean
to be their own Governors, must arm themselves
with the power which knowledge gives.*

—James Madison (1822)

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INTRODUCTION

The provision of universal secondary education has been a signal accomplishment in American history, a remarkable demonstration of our determination to make schooling an instrument of democracy, individual opportunity, and social mobility. That other countries now emulate many of its features and contours does nothing to alter the uniquely American quality of our system of high schools — its democratic assumptions and the universality of its aims. Our schools are not designed to serve class or hierarchy or privilege, and Americans do not want them to do so. Our high schools are, in the best sense, a common enterprise, one in which we put great hope and much confidence.

We now enroll more than 12 million students in grades 9 through 12, better than 90 percent of our 14- to 17-year-old population. No other country's system of education serves so many students for so many years and for such diverse ends. Even by the standards of most other industrialized nations, American education is more comprehensive, more prolonged, and more democratic.

But, too often, it is also less rigorous and less productive. It need not be.

High School Curricula: Where We Stand

High school curricula have been a continuous focus of the education reform movement inspired in part by the April 1983 publication of *A Nation At Risk*, the celebrated report of the National Commission on Excellence in Education. That report expressed alarm at the marked deterioration of academic study in our secondary schools:

Secondary school curricula have been homogenized, diluted, and diffused to the point that they no longer have a central purpose. In effect, we have a cafeteria-style curriculum in which the appetizers and desserts can easily be mistaken for the main courses.

The Commission's inquiry revealed that a full quarter of credits received by "general track" high school students were for physical and health education, work experience outside the school, remedial math and English, and "personal service and development" courses. Such courses and experiences have their place. But the Commission found that in many school jurisdictions around the country, their part of the

curriculum had expanded at the expense of core academic classes such as American history and algebra.

The National Commission's central corrective recommendation was that course requirements in basic academic subjects be strengthened. No American student, the Commission concluded, should graduate from high school without first completing at least four years of English and three years each of social studies, mathematics, and science. These standards were endorsed by President Reagan, and they have since served as an important national goal. Since 1983, nearly all of the 50 states have made progress toward this goal, and three — Florida, Louisiana, and Pennsylvania — have attained it.

But it is too soon to declare victory; much ground remains to be covered. The time a student spends on any subject is no guarantee that he will master it. What goes into high school classes — their content and quality — is every bit as important as their number. "You could require *five* years of math and still not get through second-year algebra," one school superintendent has pointed out. "Sure it's good to set standards, but it's a hollow standard when you just add time instead of *expectation*." In the end, it is content — what is taught — that is key.

James Madison High School

Educational expectations must be high, attainable, and worthwhile. This document is an attempt to add such substantive expectations to the graduation standards established in *A Nation At Risk*. Written with the advice of principals and teachers at a number of representative American schools, it is my idea of a sound secondary school core curriculum. It describes what four years of English and three years each of social studies, mathematics, and science should consist of. And it adds two years each of foreign language and physical education, and a half-year each of art and music, suggesting suitable content for them, and explaining why they should supplement the other required subjects.

This document should not be understood as an argument for the exclusion from high school curricula of special and vocational electives or substitutions. Indeed, in a number of places, it notes the value of elective classes for continued or supplemental study.

But schooling in the full set of core academic disciplines should be central to the true purpose of American secondary education, and consequently this curriculum is for the most part traditionally liberal and nonspecialized. As James Madison wrote in a letter quoted as the

epigraph to this volume, "Knowledge will forever govern ignorance: And a people who mean to be their own Governors, must arm themselves with the power which knowledge gives." In his honor, I call this core curriculum *James Madison High School*, and I think every American child deserves access to a secondary education like the one it describes.

Last year in *First Lessons*, my report on American elementary education, I discussed the knowledge, skills, and habits of character toward which I thought the kindergarten through 8th grade curriculum should be directed. *James Madison High School* is in some sense a sequel to *First Lessons*, a vision of what good elementary education should prepare students for, and of how the 9th through 12th grade curriculum can build on that foundation.

I should stress that *James Madison High School*, while reflecting the quality and character of a number of real-world models, is meant as a goal and an ideal, not as a monolithic program to be uniformly imposed or slavishly followed. Like *First Lessons*, *James Madison High School* is not a statement of federal policy. Nor can it be. The power to mandate a secondary school curriculum for American students does not belong to the federal government. Moreover, the Department of Education is specifically prohibited by statute from exercising direction, supervision, or control over the curriculum or program of instruction of any school or school system.

That is as it should be. We are a nation of local education policies and practices. And local schools must adapt to local circumstances. I do not presume to instruct school boards, administrators, principals, teachers, or parents in the precise shape, sequence, or specialized content of their secondary school curricula. They know best their own requirements and problems. Instead, *James Madison High School* is simply a statement of my considered judgment on an important subject, an attempt to deal with a question I am often asked: How would you do it? What would you teach? That seems to me a fair question, and one too important to duck or avoid. This document is my answer to that question, one that I hope will prove a useful contribution to the national conversation about education reform, suggesting directions for new attention and effort.

What Should Be Studied and Why It's Within Reach

Obviously, readers may demur from specific conclusions I reach in these pages. Different parents want different things for their children,

and they want different schools to provide them. Still, I believe that there remains a common ground that virtually all our schools can reach and inhabit. And I believe that most Americans agree about where that common ground is — about what our students should learn.

We want our students — whatever their plans for the future — to take from high school a shared body of knowledge and skills, a common language of ideas, a common moral and intellectual discipline. We want them to know math and science, history and literature. We want them to know how to think for themselves, to respond to important questions, to solve problems, to pursue an argument, to defend a point of view, to understand its opposite, and to weigh alternatives. We want them to develop, through example and experience, those habits of mind and traits of character properly prized by our society. And we want them to be prepared for entry into the community of responsible adults.

Achieving these goals need not involve a curriculum of unrealistic intellectual pretensions. *James Madison High School* is a curriculum for the students we have, not for an imaginary class of teenaged wizards. And it is also, I believe, the kind of basic program most Americans want for their schools. In my travels around the country, in my talks with teachers, principals, elected officials, and parents, I find that American opinion stands behind the kind of core curriculum *James Madison High School* describes.

In fact, programs embodying many of its features and principles are currently in effect at a number of schools around the country. "I am pleased to report that everything envisioned for *James Madison High School* is in place at [my school]," one principal wrote me. "We already use a curriculum similar to the one you propose," a Florida superintendent told us, "so I can certify to you that IT WORKS!" Profiles of several excellent schools appear in this document. They are not alike in every detail. They serve inner-city and rural communities, suburbs and small towns. Their students come from comfortable and disadvantaged homes. Their graduates go on to further education or directly to work.

But what all of these schools do share is a commitment to quality education — and to success. A broad, deep, and effective core curriculum is possible for almost all American secondary school students. I have seen it at work, producing measurable results, in high schools all over the United States. And I believe it possible for virtually any school to refine and adopt a core curriculum similar to that which these schools provide so successfully.

To duplicate their success, some schools may need to eliminate the curricular clutter that *A Nation At Risk* decried. But even allowing for

the nonacademic extras with which some states and localities burden their schools, a *James Madison High School* program (36 semester-units of required work in grades 9-12) should not stretch most districts' capacities — or those of their students. There is plenty of room in the modern American high school for a strong and coherent basic curriculum.

States or localities bent on strengthening their requirements may fear shortages of qualified instructors for additional or improved classes. Clearly, *James Madison High School* affirms the need for American teachers who are fully in command of their subjects. In principle, we can ask no less of them. But no worthy statement of educational goals depends for its success on full and immediate implementation. If we must reform and restructure our system of teacher training to provide the nation with enough men and women capable of teaching our students a solid core curriculum — and teaching it well — so be it. In the meantime, we may take heart from the example of a state such as New Jersey, which has successfully experimented with the alternative certification of teachers. There is, as it happens, a great number of adult Americans already able and eager to teach our students. We should take care not to perpetuate such unnecessary barriers to their employment as now exist in many states.

The bottom line is this: realizing curricular improvements may take work — new laws, better teacher training, improved textbooks — but that does not make these improvements impossible, or any the less desirable. Indeed, they are a national imperative.

A Word About Student Differences

Any proposed core curriculum must acknowledge one reality above all others: among individuals, preparation for high school differs, as do intellectual ability and academic prowess. American students vary in ability, interest in learning, temperament, career aspirations, upbringing, family background, economic status, and racial and ethnic heritage. So how can a uniform and fairly demanding program like *James Madison High School* apply to the diverse student population of the United States? Will a rigorous academic program of high standards and expectations leave behind the less able and less advantaged?

Any serious answer to this question must begin by stipulating — and celebrating — the pluralism of American society. History shows that our pluralism has always posed formidable challenges to our schools. But history also demonstrates that for more than two cen-

turies, American education has welcomed diversity, served classrooms full of the poor and the rich and the in-between, and often successfully bound them together in a cooperative undertaking. Today, still, every American child has an equal claim to a common future under common laws, enjoying common rights and charged with common responsibilities.

There follows the need for common education. In the past, American schools have proved that all children can learn and that scholastic excellence can transcend differences of race, religion, gender, and income. Our schools have refused to inflate or exalt such differences into permanent educational obstacles. And by their adherence to principles of true democratic education, our schools have given us millions upon millions of priceless gifts — educated citizens.

Today, however, there are some who view with disdain most efforts to restore and maintain high standards and high expectations, as if education reform were a mean-spirited trick to weed out weaker pupils before they get too far. "We will have taken the high jump and raised it from five to six feet for a group of youngsters that couldn't jump it at five feet without extra help," one state school superintendent recently complained. Americans should be wary of assertions like these. They may be expressed in the sweet language of concern, or they may be exhaustively footnoted with references to this or that conclusion of modern social science. Pessimism manufactures its own evidence. But at bottom, its message is always the same: "Some kids can't. Their color, class, or background will get in the way."

That's a discouraging message — and mostly a false one. In a previous Department publication, *Schools That Work: Educating Disadvantaged Children*, we documented the remarkable academic success of poor, disadvantaged, and minority children who, when given a chance at a solid education, take it — and learn. The fact is that though there may now be too many schools that fail to teach well, there is rarely anything "unteachable" about most of their students. Too many able and eager American students are not learning enough simply because of a mistaken belief that they cannot or will not learn.

Of course, our students are individuals, and so they present their schools with distinctive problems and needs and interests. There are below average and gifted students, there are students who speak English as a second language (or not at all), and there are students with learning disabilities and handicaps of varying kind and severity. For these students, most local districts design particular classes or programs not treated in this document — advanced placement biology, remedial math, bilingual or special education, and so on. There will always be students

who require extra attention; it should be available. And local authorities are best suited to devise and provide it.

These are questions of means, and they are important. Critics may claim that too few of our students are currently equipped to handle the curricular material described here in the time and form suggested. I believe otherwise. I think most American students could handle the classes in *James Madison High School*; again, I have seen students of all backgrounds do it. There are, of course, some children — too many, in fact — whose present preparation for high school is inadequate to the task. That is an argument for further improvements in elementary and intermediate education. It is not, however, an argument for abandoning any high school student in the present. If one student — for whatever reason — cannot learn algebra and geometry in two years, then he should be given three, and the help he needs. But he should learn algebra and geometry. We may vary our pedagogy to achieve our educational goals, but we must jealously retain and guard those goals, the goals *James Madison High School* pursues: mastery of a common core of worthwhile knowledge, important skills, and sound ideals.

I've been told the following story: A teacher was visiting a high school classroom and speaking to a group of average and below average students. They were talking about what their school should teach. The teacher asked these students what they wanted to study and what they wanted to read. One boy in back raised his hand. "We want to read what the smart kids read," he said.

That's the right answer. Responding to the needs and differences of individual students is a necessary but not sufficient mission for American education. Our schools cannot be governed by stereotypes associated with circumstance — stereotypes that encourage us to ask and expect too little from our students. In the United States we have come a good long way since Harvard president Charles William Eliot's 1908 recommendation that high schools teach different material to different students according to their "evident or probable destinies." Today, American schools must offer every child the curriculum he needs to find a *better* destiny. If we are serious about equal opportunity in general, then we must provide equal opportunity in school. I believe that *James Madison High School* is a curriculum for educational opportunity, and I believe access to a school that offers it should not be an accident of where a student lives or of how much money his parents make.

Some American secondary schools already resemble *James Madison High School*. Many others provide parts of it in their teaching and can

reasonably be expected to provide the rest. Most of our students are ready; some are not. But we should do what can be done now; we should aim high not low, and remember that children tend to perform according to our expectations of them. And we should look to a time when *James Madison High School* is more the rule of American education, and less an exception.

William J. Bennett
U.S. Secretary of Education

THE PROGRAM IN BRIEF: A Four-Year Plan

SUBJECT	1st YEAR	2nd YEAR	3rd YEAR	4th YEAR
ENGLISH	Introduction to Literature	American Literature	British Literature	Introduction to World Literature
SOCIAL STUDIES	Western Civilization	American History	Principles of American Democracy (1 sem.) and American Democracy & the World (1 sem.)	
MATHEMATICS	Three Years Required From Among the Following Courses: Algebra I, Plane & Solid Geometry, Algebra II & Trigonometry, Statistics & Probability (1 sem.), Pre-Calculus (1 sem.), and Calculus AB or BC			
SCIENCE	Three Years Required From Among the Following Courses: Astronomy/Geology, Biology, Chemistry, and Physics or Principles of Technology			
FOREIGN LANGUAGE	Two Years Required in a Single Language From Among Offerings Determined by Local Jurisdictions			
PHYSICAL EDUCATION/HEALTH	Physical Education/Health 9	Physical Education/Health 10		
FINE ARTS	Art History (1 sem.) Music History (1 sem.)			

ELECTIVES

NOTE: This chart describes the *James Madison High School* curriculum. For each core subject it shows the number of years required and the names of courses that fulfill them. Each course is two semesters long, except as indicated.

In certain core subjects (English, social studies, and physical education/health), all students are obliged to take particular courses in a set sequence. In other core subjects (mathematics, science, foreign language, and fine arts), the selection of courses and/or their sequence is more flexible. This flexibility permits adjustments for individual student interests, needs, or abilities, and it provides room throughout the four-year program for elective, supplemental, or locally mandated study within or outside the seven core subjects.

The shaded area above represents room for such classes in a four-year schedule of seven-period days.

ENOUGH TIME IN THE DAY?

Sample Student Schedules

There are more than 15,000 public school districts in the United States. Roughly half of them organize secondary education around a six-period school day, which permits 48 semester-units of course work over four years. The other half follow a seven-period day, which permits 56 semester-units. Applied to either schedule, the 36 semester-units required by the *James Madison High School* program leave open at least 25 percent of available class time for supplemental, elective, or locally required study. That's a lot. It should be enough.

Consider the following sample student schedules, based on the more restrictive six-period day:

Student A

9th Grade

Introduction to Literature
Western Civilization
Algebra I
Spanish I
P.E./Health
Typing/Word Processing (*elective*)

10th Grade

American Literature
American History
Astronomy/Geology
Spanish II
P.E./Health
Bookkeeping (*elective*)

11th Grade

British Literature
Principles of American
Democracy (*1 sem.*)
American Democracy and the
World (*1 sem.*)
Plane and Solid Geometry
Biology
P.E./Health (*elective*)
Psychology (*elective*)

12th Grade

Introduction to World Literature
Algebra II and Trigonometry
Principles of Technology
Art History/Music History
Technical Writing (*elective*)
Graphic Arts (*elective*)

Student B

9th Grade

Introduction to Literature
Western Civilization
Algebra I
Astronomy/Geology
P.E./Health
Band (*elective*)

10th Grade

American Literature
American History
Plane and Solid Geometry
Biology
P.E./Health
Band (*elective*)

11th Grade

British Literature
 Principles of American
 Democracy (*1 sem.*)
 American Democracy and the
 World (*1 sem.*)
 Algebra II and Trigonometry
 Chemistry
 French I
 Band (*elective*)

12th Grade

Introduction to World Literature
 Statistics and Probability (*1 sem.,
 elective*)
 Pre-calculus (*1 sem., elective*)
 Physics (*elective*)
 French II
 Art History/Music History
 Band (*elective*)

Student C**9th Grade**

Introduction to Literature
 Western Civilization
 Plane and Solid Geometry
 Astronomy/Geology
 Latin I
 P.E./Health

10th Grade

American Literature
 American History
 Algebra II and Trigonometry
 Biology
 Latin II
 P.E./Health

11th Grade

British Literature
 Principles of American
 Democracy (*1 sem.*)
 American Democracy and the
 World (*1 sem.*)
 Statistics and Probability (*1 sem.*)
 Pre-calculus (*1 sem.*)
 Chemistry
 Latin III (*elective*)
 Art History/Music History

12th Grade

Introduction to World Literature
 Calculus AB (*elective*)
 Physics (*elective*)
 Latin IV (*elective*)
 Computer Science (*elective*)
 Painting and Drawing (*elective*)

Each of these students fully satisfies *James Madison High School* requirements. In addition, Student A takes an extra year of physical education/health, and studies typing, word processing, bookkeeping, psychology, technical writing, and graphic arts. Student B takes an additional year of math and science and plays in the school band. Student C takes two extra years of a foreign language, a fourth year of math and science, a studio arts class, and computer science. The *James Madison High School* program prevents none of these students from fully pursuing individual interests, and it should also permit any school or school system substantial flexibility for course design and scheduling.

COURSE DESCRIPTIONS

English

Introduction to Literature (9th grade)

The syllabus is limited to allow close reading and is confined to recognized masterworks of Western literature. A good selection might include a few books of Homer's *Odyssey*, parts of the Bible, sonnets and plays of Shakespeare, *Huckleberry Finn*, and a Dickens novel. These readings serve as models of good writing and as subjects for students' own writing exercises, which are emphasized throughout. Students review grammar and then study sentence and paragraph structure. They learn how to craft a strong thesis; how to write a cogent, coherent, and concise essay to support it; and how to revise and edit their own work, in consultation with their teacher. Also, students are given periodic practice delivering oral reports in class. *One year, required.*

American Literature (10th grade)

Students read a careful selection of American fiction, drama, and poetry. A good syllabus designed to spotlight the distinctive American achievement in literature might include Franklin, Irving, Hawthorne, Poe, Whitman, Twain, Melville, Dickinson, Faulkner, Wharton, Hemingway, O'Neill, Fitzgerald, Frost, Ralph Ellison, and Robert Penn Warren. Regular writing assignments are made and continued emphasis is placed on clarity, precision, and frequent revision. Students are given increasing experience in classroom speaking. *One year, required.*

British Literature (11th grade)

Students examine a broad selection of British fiction, drama, and poetry. A good syllabus might include Chaucer, Shakespeare, Donne, Milton, Swift, Blake, Wordsworth, Keats, Austen, the Brontës, Dickens, George Eliot, Hardy, Conrad, T.S. Eliot, and Shaw. Regular writing assignments are made and continued emphasis is placed on clarity, precision, and frequent revision. Students are given continued experience in classroom speaking. *One year, required.*

Introduction to World Literature (12th grade)

Students read a careful selection of European and non-Western fiction, drama, and poetry in translation. A good syllabus might include a small number of works by authors from classical Greece and Rome (Sophocles and Virgil); a more generous selection from noted authors of Europe and Russia (e.g., Dante, Cervantes, Molière, Balzac, Chekhov, Dostoevsky, Zola, Mann, and Ibsen); and depending on the instructor's knowledge and interest, a small number of works from Japan, China, the Near East, Africa, or Latin America. Regular writing assignments are made throughout, and a senior research paper is required. Students' work in classroom speaking continues, culminating in a substantial prepared talk before their classmates. *One year, required.*

American parents want their schools to do one thing above all others: teach their children to read, write, and speak well. For full participation in American society, command of the English language is an absolute necessity. And familiarity with great literature ought to be a gift of education.

But the English language skills of American high school students are poor. According to a 1985 report of the National Assessment of Educational Progress (NAEP), only about 5 percent of American 17-year-olds have advanced reading skills, and fewer than half rank as adept. Numerous studies point to a general decline in the ability of American students to recognize great works and characters of literature. In 1986, NAEP reported that the writing performance of American high school students is, "quite simply, *bad*." Fewer than one-fourth of 11th graders perform even at a minimally adequate level on writing tasks considered essential to academic study, business, and professional work. And more than 60 percent of them say that they do not enjoy writing.

A basic reason for the poor performance of American high school students in reading and writing is that they are not currently asked to do much of either. In the 1985 NAEP report, more than a quarter of the students said they regularly read 10 or fewer pages a day. In 1986, more than a third of 11th graders reported writing fewer than three reports or essays during an entire six-week period. Full literacy demands more practice than this, and the *James Madison High School* English curriculum is designed to ensure that students get all they need.

Choices about which particular books students should read are obviously decisions best left to individual school districts and schools — to teachers, principals, parents, and school boards. My own suggestions are only that: suggestions — albeit ones based on solid ground. For despite the many and competing claims to our attention made in the name of momentary "relevance," it is my strong sense that a general American consensus does exist about the most compelling ideas and books and writers our students should know.

In 1984, when I was chairman of the National Endowment for the Humanities, I invited a number of distinguished scholars, and the general public, to send me their recommendations for a short list of books any high school graduate should have read. I received hundreds of replies naming many different texts and authors. But on most lists, repeated with remarkable regularity, were the works around which *James Madison High School's* freshman English course is organized:

Homer's *Odyssey*, the Bible, Shakespeare's plays and sonnets, Mark Twain's *Huckleberry Finn*, and the works of Charles Dickens. These are texts that have stood every test of time, literary quality, and influence, and I think they would make a fine introduction to literature in almost any American high school.

The sources of this consensus are obvious. It is, after all, to the classic monuments of the literary imagination that we turn to find the subtlest, keenest, and most enduring insights into human behavior, and the most stirring evocations of human purpose. Literature puts us into a more profound relation with reality. In the literature of the West, in particular, a mirror is held up in which we can discern with heightened clarity the lineaments of our own American reality — the forces of mind and appetite, will and spirit, that continue to shape our individual lives and the life of our society. Our great literature is an inexhaustible storehouse of common wisdom and an incomparable classroom of form and beauty. In the limited time available to secondary education, great literature has a most important claim to our students' attention.

Beyond an introduction to literature, the *James Madison High School* freshman English course includes a thorough review of grammar and the first part of a four-year regimen of writing instruction and practice, designed to provide students with a solid grounding in the elements of style. The program follows this introductory course with sophomore- and junior-year surveys of the American and British literary traditions. The sophomore American literature sequence is intended to complement the required sophomore American history class. In the *James Madison High School* curriculum, World Literature is the only class that must be taken by all seniors, and should draw on its students' previous studies in English and other disciplines.

Curricular Excellence: A Profile

A. Philip Randolph Campus High School New York, New York

"Our students are familiar with the classics — they are able to use the image of the shadows in Plato's cave to relate to their everyday experience," their principal says. "What is truth, perfection, and beauty? These are familiar questions to them." Who are they? They are the 1,500 black and Hispanic students, half of them disadvantaged, who attend A. Philip Randolph Campus High School on the grounds of City College of New York in Harlem. Good students from all over New York may apply to Randolph. Selection of most students is made at random by computer.

Once there, students follow an extremely rigorous college preparatory program: eight academic classes a day, five days a week. To graduate, they must complete four years of English; three and one-half years of history; three years each of math, science, and foreign language; one year of computer science; a quarter-year of community service; and three additional college level credits. Course material — which incorporates other subjects such as art, music, physical education, and health — is intensive, challenging, and complete.

It works. Daily attendance and graduation rates are well over 90 percent. "My students are so eager to learn," says Lottie L. Taylor, the principal, "that I think that I'm the only principal in the city who at night must ask students: 'Please go home.'" Ninety-three percent of Randolph students voluntarily attend summer school. There are no dropouts. And test scores are extraordinarily high: almost 9 out of 10 students are accepted to four-year, competitive colleges and universities. Most of the rest attend two-year institutions for specialized training in nursing or other professions.

Randolph's greatest strength is its curriculum, which emphasizes math and science without neglecting great literature or the mastery of written English and speech. Freshmen and sophomores are drilled in reading and writing, and study the works of authors like Twain, Dickens, Dostoevsky, Balzac, and Cervantes. Juniors spend a year on American literature, reading Faulkner, Fitzgerald, Hawthorne, Hemingway, and Ralph Ellison, among others. Senior year is devoted to British authors, including Jane Austen, Joseph Conrad, George Eliot, Jonathan Swift, and James Boswell.

On top of this core, many Randolph students participate in professional training. The Macy Medical Program helps prepare students for medical careers by providing supplemental math and science coursework. Professors from City College teach the Engineering Program, which requires students to take nine additional math classes. And Randolph's Education Program gives its students the strong academic foundation that future secondary school math and science teachers need.

Mrs. Taylor has little patience with doubters and naysayers. "Don't say it can't be done," she insists. "We have done it, and we will continue to do it." A recent Department of Education site visitor called Randolph "absolutely amazing," with "a culture of excellence" that should be "an archetype for urban minority education." The president of City College agrees. "No more research is necessary," he says. "What we're seeing at Randolph is what's needed" — everywhere.

Social Studies: History, Geography, and Civics

Western Civilization (9th grade)

A general survey history of Western civilization from its beginnings through the early 20th century. Includes a brief review of classical Greece and Rome; the development of Judaism and Christianity; Medieval Europe; the rise of Islam; the Renaissance; the Reformation; the age of commerce, colonies, and discovery; the Enlightenment; the American and French Revolutions; the industrial revolution in England; nationalist and unification movements in 19th century Europe; Western imperialism; and great power conflicts before World War I. Knowledge of geography should be emphasized. Writing assignments are made throughout. Where possible, students also discuss literary and artistic developments. *One year, required.*

American History (10th grade)

A general survey history of the United States from European discovery through the present. Includes attention to colonial America; the American Revolution and the rise of American political thought; the Federalist and Republican eras; westward expansion; Jacksonian democracy; manifest destiny; slavery; the Civil War; Reconstruction; the Gilded Age; immigration; America as a world power; the Progressive era; American participation in World War I; the 1920s; the Depression; the New Deal; the United States in World War II; and domestic issues since 1945. Knowledge of geography should be emphasized. Writing assignments are made throughout. *One year, required.*

Principles of American Democracy (11th grade, 1st semester)

Fundamentals of American government and political philosophy. Includes attention to the structural development of the modern federal and state governments; the idea of federalism; the rise of the party system; electoral, legislative, and judicial processes; the presidency; and the history of major constitutional questions, especially as treated by the Supreme Court. Includes detailed study of the intellectual roots of the American Revolution and Declaration of Independence, the Philadelphia Convention and the Constitution, and readings from *The Federalist*, the Gettysburg Address, Martin Luther King, Jr.'s "Letter From Birmingham Jail," and other speeches and essays by American statesmen. Writing assignments are made throughout, and a research paper is required. *One semester, required.*

American Democracy and the World (11th grade, 2nd semester)

American democracy and its rivals in the 20th century. Topics covered may include World War I; revolution in Russia; the rise of totalitarianism; World War II; the postwar reconstruction of Europe; the Soviet Union as a world power; the United Nations; Israel in the Middle East; NATO, the cold war, the Truman Doctrine, and containment of communism; the Warsaw Pact and the partition of Europe; the Korean War; the Sino-Soviet rift; the Berlin blockade and airlift;

the Cuban missile crisis; Vietnam; detente and arms control; the United States and the Soviet Union in the Third World; democracy as a goal of American security, trade, and foreign aid policy; and political conditions today in Europe, the Middle East, Africa, Latin America, Asia, and the Soviet Union. Writing assignments are made throughout, including a research paper. Students should become familiar with the contemporary world map and changing political boundaries since 1945. *One semester, required.*

The central importance of history to a good education is beyond dispute. History teaches a reverence for fact and understanding. It calls attention to the great achievements and disasters in human experience. And it establishes the full context of modern life by connecting, in time and place, the development of art, law, language, politics, commerce, and society. All Americans should know about their civilization: the chronology of its development, the ideas and traditions upon which it rests, the political system it enjoys, and the challenges it faces at home and abroad.

But though 97 percent of our public high schools offer some history, the average secondary school student takes only 1.4 years of it. This is far too little history, and our students suffer for it. In a 1986 National Assessment of Educational Progress survey, two-thirds of American 11th graders did not know that the Civil War took place between 1850 and 1900. A like number failed to identify on a map that part of the United States acquired by war from Mexico. Fewer than three in five could recognize the Louisiana Purchase. Half were unaware that World War I happened between 1900 and 1950. More than a third did not know that the Supreme Court can declare acts of Congress unconstitutional. Too many of our students are unfamiliar with the basic facts of their national history and government. And they know still less of the history of other countries and peoples.

One common failing of American social studies curricula is the disjointed way in which they progress. In France, all students — not just the college-bound — follow a carefully sequenced program of history, civics, and geography, in every year from 7th through 12th grade. By contrast, in the United States, students may study Greece and Rome in 4th grade, but not touch world history until 9th. They frequently get American history through 1865 in 8th grade, but must wait until 11th for the rest. Such discontinuity tends to disguise the rich texture of history and permits students to forget necessary facts and ideas.

The *James Madison High School* history curriculum is designed to

provide a solid grounding in the European and American past. It assumes that one reasonable and appropriate goal for American elementary and intermediate education is that students should enter high school with some knowledge of ancient and European civilizations, and with an appreciation of main currents and events in American history. But the curriculum is complete in itself and places no beginning student at a disadvantage. It opens with a year of Western civilization, from classical cultures through Europe in the early 20th century. It follows with a careful one-year survey of American history, from European discovery to the present day. And it concludes with an in-depth study of American democracy — two single-semester classes in American political philosophy, as it applies at home and abroad.

Schools will want to offer a fourth year of history to students interested in advanced or supplementary topics (e.g., non-Western history and economics). Senior electives should be drawn from subjects of recognized importance and should be of appropriate disciplinary rigor.

Curricular Excellence: A Profile

CAL High School Latimer, Iowa

By the side of U.S. Highway I-35, 90 miles from the nearest city, a roomful of students is working on research papers about Alexis de Tocqueville's *Democracy in America*. They are the entire junior class of CAL High School, which serves the combined farming towns of Coulter, Alexander, and Latimer, Iowa. In 1979, the magazine *Phi Delta Kappan* called CAL "small, rural, and good." Since then, enrollment has declined to just 87 students, more than a quarter of whom come from disadvantaged homes, and the community has seen a farm crisis and bank failure. But CAL High School's quality has stayed the same. It's even gotten better: in 1984, the local school board voted to boost graduation requirements and offer more classes. A recent visitor, reporting for the Department of Education, suggested an update to *Phi Delta Kappan's* description of CAL. "Small, rural, and terrific," he wrote us. "Nobody escapes education here!"

The facts support his judgment. On standardized tests of educational achievement, CAL students' composite scores consistently put them in the top 5 or 6 percentiles nationally. Only one student has dropped out in the last seven academic years. Daily attendance is near perfect. And some 80 percent of students continue their education after high school. "Anyone who has the opportunity to attend this school will be successful," Iowa's governor has remarked. "We are a goal-oriented school," CAL's civics teacher explains. "We set our goals, meet our goals, and then do all in our power to surpass them."

Some of CAL's most important goals are curricular. Despite its small size and staff, the school offers, and requires all students to pass, a full basic curriculum that matches the standards articulated in *A Nation At Risk*: four years of English, and three years each of social studies, math, and science. An additional 14 credits in physical education, computer science, and other electives are required for graduation. Work in foreign language and other studies is strongly encouraged and almost universally pursued. Every student in last year's graduating class exceeded CAL's already stringent requirements.

Reading and writing is woven into the fabric of CAL's curriculum. No student can leave the school without having read and written about a number of Shakespeare's plays. Math students must complete research papers on the contributions and achievements of famous mathemati-

cians like Euclid and Archimedes. Even physical education classes require serious writing assignments.

CAL's standout program is probably social studies. In their sophomore year, all CAL students take a world history survey that starts with ancient civilizations and proceeds into the 20th century, focusing on the development of democracy in theory and practice. As juniors, they study democracy in action with a full year of American history from precolonial times to the present day. And as seniors, CAL students study American government, with detailed readings of our founding documents and comparative investigations of rival political systems and theories.

Mathematics

Algebra I

An introduction to elementary algebra. Topics addressed include sets, variables, functions and relations, graphing, factorization of polynomials, simple systems of linear equations/inequalities, rational exponents, and simple quadratic equations. *One year.*

Plane and Solid Geometry

An introduction to geometry. Includes treatment of basic geometric theorems, with emphasis on writing proofs; calculation of area for regular polygons, and of surface area and volume for simple solids; and introduction to conic sections (analytic geometry). *One year. Prerequisite: Algebra I.*

Algebra II and Trigonometry

Principles of algebra, continued. Includes attention to properties of special functions (the natural logarithm, the exponential function, trigonometric functions and their inverses); the binomial theorem and complex numbers; polar and spherical coordinates; addition and multiplication of matrices; calculation of determinants; and elementary row and column operations. *One year. Prerequisite: Plane and Solid Geometry.*

Statistics and Probability

An introduction to statistical tools, including standard deviations, means, and medians; measures of central tendency; sampling techniques; techniques of data analysis and statistical decision-making; and permutations, combinations, and other aspects of elementary probability theory. *One semester. Prerequisite: Algebra II and Trigonometry.*

Pre-calculus

A preparation for calculus. Includes treatment of vector operations, parametric equations, Taylor expansions, limits, and continuity; graphs of polynomials and rational functions; the definition of a derivative; the derivative of polynomials as a measure of rate of change, and the integral of polynomials as a measure of the area under their graphs; and the Fundamental Theorem of Calculus. *One semester. Prerequisite: Algebra II and Trigonometry.*

Calculus AB

An introduction to elementary calculus. Includes treatment of Simpson's Rule and the Trapezoidal Rule; integration and differentiation of special functions; rate-of-change problems; the Mean Value Theorem, the Inverse Function Theorem, and the Implicit Function Theorem; special integration techniques (integration by parts, substitution of variables, and trigonometric substitution); volume integrals; the shell method and the disk method; and L'Hopital's Rule. *One year. Prerequisite: Pre-calculus.*

Calculus BC

A more demanding introduction to calculus. The topics of Calculus AB are covered (as above), followed by improper integrals; vector-valued functions; elementary linear differential equations; infinite sequences and series, including power series and Taylor series; convergence, divergence, and uniform convergence; remainder theorems; convergence tests; integration and differentiation of series. *One year. Prerequisite: Pre-calculus.*

In a 1982 test, the top 5 percent of 18-year-old American math students competed against the top 5 percent from nine other nations. The United States finished dead last. Indeed, the best American students scored worse than Japanese 18-year-olds chosen at random.

The problem begins early. Even in elementary school there is a noticeable gap between the math scores of American and Japanese students. By 8th grade, the United States is far behind the rest of the developed world in math education. In a test of 8th graders from 17 different nations on arithmetic, algebra, geometry, statistics, and measurement, the U.S. placed ahead only of Swaziland, Nigeria, Thailand, Sweden, and Israel.

Japan finished first. Yet American 8th graders spend more time in math classes than do their Japanese counterparts, and American math classes are smaller than Japanese classes.

Part of the problem is attitude. In a recent study, Japanese and Chinese parents were asked what contributed most to success in mathematics. Their leading response was "effort." American parents, by contrast, cited "ability." We speak of mathematical "geniuses" in terms we would never apply to even our finest history students, and while we expect great things from a very few students, we do too little to encourage the rest. We seem possessed by the false notion that many students have an incurable math phobia or disability. "We expect too little of our children, are too easily satisfied, and don't really believe in the power of hard work," one leading mathematics researcher recently concluded. And our de-emphasis of hard work damages the quality of our math education.

But curricula, too, have played a major role in the decline of math education. In Japanese and many European schools, students begin to study algebra in 7th grade. Most American 8th graders are still doing arithmetic. Where in Japan and most European countries nearly all college-bound students study calculus in high school, only a fifth of all college-bound American children get that far. Moreover, American

schools tend to teach math with a "spiral" technique; topics are visited repeatedly at ever higher levels of sophistication, rather than treated conclusively just once. This technique, along with an overemphasis on computation and the tardy introduction of algebra, encourages students to think of math as boring and repetitive, and thus discourages them from further study.

That's a shame. Well taught, math is a thing of beauty, exciting in its logic, elegance, and coherence. Math is also a vital component of a good education. In part, the study of math is the study of problems and solutions. It builds both the analytic spirit and the deductive capacity on which intelligent thought depends. And it teaches students the value of precise thinking.

But it does so only if students learn how to think mathematically. Wherever possible, students should be taught how to derive formulas, not just to memorize them, and problem-solving techniques should be explained, not just presented. Students ought to struggle with a few thorny problems after they have learned to perform the simpler calculations on which they are based. And students should think about *why* math works, not simply how. By stressing mathematical thought as well as mathematical results, schools can teach a mathematics that is comprehensible, memorable, and perceived by students as worthwhile.

The *James Madison High School* program requires students to take three years of math. It assumes that a reasonable and appropriate goal for American elementary and intermediate education is that all students should enter high school with a strong background in arithmetic, exponentiation, fractions and simple statistics, and similar elementary material. And it describes a flexible curriculum of courses that may be entered at a number of different levels of prior attainment, beginning with elementary algebra. The *James Madison High School* sequence is a relatively traditional one. It preserves the integrity of the distinct mathematical subdisciplines on the assumption that students should become knowledgeable about the rudiments of both geometric and algebraic analysis before they begin relating these two different styles of thought.

Under such a program, students would learn elementary algebra and geometry, and then take a more advanced algebra course which includes an introduction to trigonometry. Students interested in further work in mathematics could then study statistics and probability, followed by a semester-long course designed to prepare them for senior-year calculus. Many schools will want to offer these students a normal calculus course or an accelerated one covering more material.

Curricular Excellence: A Profile

James A. Garfield High School Los Angeles, California

In early summer 1982, Educational Testing Service (ETS) examiners noticed suspicious similarities in the Advanced Placement (AP) calculus examinations of a number of Garfield High School students — all the answers were right. An incredulous ETS suspected cheating, and was prepared to throw out the results unless the students agreed to take the test again under careful proctoring. Twelve did. All passed. Last May, five years later, 85 Garfield students passed AP exams in calculus. Only a half-dozen schools in the United States have greater AP calculus success, and each of those schools is either open to students only by competitive application or draws its students from affluent, educated neighborhoods.

Garfield is different. It serves the East Los Angeles barrio, and almost 90 percent of its 3,500 Hispanic students are disadvantaged. As recently as 1975, the school was an educational disaster. Street gangs enjoyed official recognition in its halls and keys to the principal's office. Garfield was violent, filthy, and unsuccessful. It was also on the verge of becoming the first school in Los Angeles history to lose its accreditation. Today, however, parents will try almost anything to get their children into Garfield High, from personal appeals to the principal, to fake addresses on school registration forms.

Garfield's turnaround began when the Los Angeles Unified School District fired every one of the school's administrators and brought in a new team that expelled the gangs, cleaned the building, and established order. But much of the rest of Garfield's success is curricular. The new principal pushed a beefed-up, traditional core curriculum and deemphasized peripheral and insubstantial electives. The AP program was used as a challenge and motivation for underachieving students. Mathematics was first, and is still the school's greatest pride — an incredible one-third of all Mexican-American students in the nation who pass the Calculus BC examination come from Garfield. But what began in math has now spread through every department. Today, honors and advanced classes are offered in 13 subjects. More than 500 students participate in the program. One history teacher recalls a colleague warning him in 1973: "You can't have Advanced Placement here, because our students just can't learn." The facts suggest otherwise. Indeed, the

size and success of Garfield's AP program rank it among the nation's finest.

Whether in AP or not, all Garfield students must take at least three years each of English, social studies, mathematics, and science, along with physical education, health, and career planning. It works. School-wide test scores are rising steadily, and 7 in 10 Garfield graduates continue their education past high school. "I have some problems with some individuals who say we're pushing too much" on curricular improvement, one Garfield High School administrator complained. "But I know it works. I know it's good stuff. You really have to expect these kids to act the way you want them to act, and — boom — they will respond."

Science

Astronomy/Geology

An introduction to the heavens and the Earth. First semester topics addressed may include the structure and history of the universe; the life cycle of stars (red giants, white dwarfs, neutron stars, supernovae, black holes); meteorites, comets, and asteroids; quasars and pulsars; and the sun, the planets in our solar system, and their satellites. Second semester topics include the history and structure of the Earth; plate tectonics, continental shift, volcanos, and earthquakes; the geologic cycle; rocks, minerals, and their formation; and composition and circulation of the atmosphere and oceans. *One year.*

Biology

A basic survey of biological science. Topics addressed may include cellular structure and function; molecular biology; metabolism (anaerobic and aerobic respiration); mitosis and meiosis; photosynthesis and elementary plant biology; genetics (structure, function, and production of nucleic acids and proteins); physiological structure and function, with special emphasis on biological feedback and endocrine control; evolution, adaptation, and reproduction; and neurology (neural structure and the transmission of nervous impulses). *One year.*

Chemistry

A survey of basic chemistry. Topics addressed may include the structure of the atom and nuclear energy; chemical periodicity; chemical bonding; acids, bases, and salts; solutions, colloids, and suspensions; chemical kinetics; pressure and temperature in chemical reactions; balancing equations; equilibria; states of matter; elementary thermodynamics; phase diagrams; reduction and oxidation reactions (electrochemistry); basic organic chemistry (compounds, polymers); and environmental chemistry. *One year.*

Physics

A survey of basic physics. Topics addressed may include classical mechanics (Newton's laws, harmonic motion, reference frames, work and energy, and rotational dynamics); optics; acoustics; special relativity; an introduction to quantum behavior; electricity and magnetism (charge, potential, electric and magnetic fields, circuit theory, and Maxwell's equations); and waves. *One year.*

Principles of Technology

An introduction to the design of buildings, bridges, machines, and electrical circuits. Topics chosen from structural, electrical, and mechanical engineering may include force, shear, bending, vibration, deflection, buckling, properties of building materials, resonance, elementary circuit components and theory, diodes, transistors, amplifiers, logic elements, digital circuits, work, energy, momentum, power, moments, torque, and heat transfer. Students perform a variety of hands-on experiments (e.g., constructing model bridges designed to carry as much weight as possible, creating simple electrical circuits, and building small motors). *One year.*

In 1983, when *A Nation at Risk* was issued, American high schools required students to take an average of only 1.5 years of science. Since then, President Reagan has challenged schools to double this requirement and we have seen modest improvements; the average requirement is now 1.8 years. But we still have a long way to go.

One problem with American science education is that it frequently starts too late. American children study only one-third to one-half as much science as their counterparts in West Germany, Japan, East Germany, the Soviet Union, and other countries. In many school districts around the country, serious study of science does not begin until a student reaches high school. As a result, students in other countries have a head start on American children. And since science seems like an afterthought, many of our students fail to become enthusiastic about studying it.

The problem persists in high school. Only about half of American students in 9th-12th grade took any science in the 1985-86 academic year. And there is reason to doubt the quality and depth of the science classes available to many of them. The National Science Teachers Association, in a recent survey of roughly 24,000 high schools in the United States, found that more than 7,000 offer no physics at all. Over 4,000 have no chemistry classes. And almost 2,000 do not teach biology. Small wonder, then, that American students do not know very much about science. Compared to youngsters in other advanced nations, American students consistently score close to the bottom in tests of scientific achievement.

Many school districts shy away from science education because they think it depends on costly laboratories. Well-run laboratory work is a useful and important classroom supplement, underlining and illustrating facts and principles of the scientific method, and demonstrating that order and sense may be made from the results of careful experimentation. But labs need not be expensive, and schools with limited funds can still familiarize students with experimentation. Students can perform small-scale experiments with materials purchased at the supermarket or drug store, or even with toys whose motion and construction accurately reflect fundamental properties of physics. To supplement such work, students may read accurate accounts of how great scientists made their discoveries. The point is: all schools can afford to give their students a good science education.

Indeed, none can afford not to. America needs trained scientists as never before. And just as important, America needs ordinary citizens

possessed of those intellectual habits and intuitions that a good science education produces. Properly taught, science instills in students the stubborn curiosity that is the driving force behind insight, both scientific and nonscientific. It trains their physical intuitions — their feel for the way the world works — even as it develops in them a readiness to consider the counterintuitive. It makes them better able to frame problems and to think through solutions. It teaches them how to develop and test hypotheses, and how to draw conclusions from data. And, of course, it gives them information about astronomy, geology, biology, chemistry, and physics. Even students who plan no further study of science benefit from this information, for it comprises the foundation of an entire branch of human knowledge. And it makes students better citizens — better able to understand the many scientific and technological issues that face us, and better able to appreciate our world and what we have accomplished in it.

In science as in math, students should not simply be shown results. Theories should be explained, so that students can understand why they are useful. Science is not a blueprint for unthinking memorization. Students should learn how to solve problems, but they must also learn why their problem-solving techniques work.

The *James Madison High School* curriculum is designed to help students appreciate the natural world's intricacy by means of a thorough introduction to the major branches of scientific inquiry. And it recognizes the essential integrity of these distinct branches. Students are required to choose three of the following courses: Astronomy/Geology, Biology, Chemistry, and either Physics or Principles of Technology. Astronomy/Geology is a good introduction to the scientific world and is most appropriate for freshmen. Because it requires less math, Biology is also a good 9th or 10th grade class. Chemistry, and especially Physics, should ideally be delayed until students are studying math beyond basic algebra. Principles of Technology covers many of the same scientific theories as Physics, but it is designed for students who enjoy seeing the practical applications of their classroom study. Laboratory work may take place during regular class hours, or during extra periods as scheduling permits.

Many schools will want to offer a fourth year of science to students interested in advanced or supplementary topics. Second-year classes in any of the required core disciplines would be appropriate.

Curricular Excellence: A Profile

Shawnee Mission South High School Shawnee Mission, Kansas

Every year, 5,000 elementary school students from all over the Kansas City metropolitan area attend lectures on various subjects concerning the history and meaning of natural science. It happens at a 23-acre museum/laboratory in Shawnee Mission. And their "teachers" are the teenage science students of Shawnee Mission South High School, right next door.

That's how good South High's science education is. Its biology program was called the nation's best in 1983 by the National Science Teachers Association (NSTA). The teacher who designed South High's Environmental Science class won NSTA's first place grant award last year. Future scientists could hardly find a better high school to attend.

The rest of South High's curriculum is solid, too. To graduate, all students must take four years of writing and literature in English; three years of social studies, consisting of world geography and American history and government; two years each of mathematics and science; a year and a half of physical education and health; and an additional eight and a half academic credits. Beginning with the class of 1989, computer science and other courses will be added to graduation requirements. But most South High students are already ahead of the game.

Honors, advanced level, and advanced placement programs are offered in English, American government, world geography, chemistry, foreign languages, and European and American history. And any student may sign up for any class — even honors and advanced placement courses are open enrollment — provided the student agrees to remain in the class at least one semester. Most students take advantage of South High's academic opportunities. Three-fourths of the school's 1,855 students are currently taking science courses. This year there are six full sections of physics. And few students graduate having satisfied only the minimum requirements.

All this studying pays off. Attendance and graduation rates are very high; dropout rates are very low. And every year since 1982, South High students' composite achievement test scores have been in the top 10 percent of the nation — or better. More than 90 percent of all graduating seniors go on to college each year.

Part of South High's success is due to its fine teachers. Principal

Charles Nichols calls them "a thrill to be around. There's a lot of exchange of ideas. It's very stimulating." And there's no denying the quality of the material they teach. "It's an excellent curriculum," Mr. Nichols says, and it's a principal reason why Shawnee Mission South High School is able to give its students the strongest possible "push to achieve."

Foreign Language

First Year

Includes basic vocabulary and pronunciation, basic grammar and constructions, elementary readings and translations, and basic cultural material. Oral communication is emphasized.

Second Year

Includes a review of grammar and introduction of more sophisticated constructions and vocabulary; idiomatic expressions; further reading, translation, and writing exercises; and more advanced cultural material. Speaking and comprehension skills are given continued stress.

Third Year

Emphasizes advanced oral expression, with continued study of grammar, vocabulary, and idiom. Includes readings from foreign periodicals and literature, advanced dictations and translation, and short essays.

Fourth Year

An introduction to literary study, with analysis and discussion of major works in the original, and attention to larger historical themes. Includes additional exposure to grammatical structures and vocabulary, and frequent translation and written work.

Fifth Year

A continued study of literature and conversation that allows students to perfect their oral and written skills.

In most developed nations, schoolchildren routinely study a number of foreign languages. French students, for example, must study two foreign languages — one for six years, and the other for four — before they can graduate from high school. In the United States, interest in secondary school foreign language instruction has risen sharply since 1982; 30 percent of American public high school students are taking a foreign language, the highest percentage in 70 years. But we still have a long way to go. No state — only the District of Columbia — currently requires all high school students to study even one foreign language. If this apparent consensus reflects a low judgment of the utility of such study, it is mistaken. Command of foreign languages permits reading of world literature in original forms. In learning about other cultures, students are made to appreciate the size and diversity

of human experience and to understand better the contours and content of their own. And by studying foreign languages, students can become more sensitive to the nuances and special features of English, which they might otherwise take for granted or ignore. Often it is in foreign language classes that children first learn to think in detail about grammar and syntax.

The *James Madison High School* program requires students to study a single foreign language for two years, though further study is strongly recommended, especially for those interested in higher education. Too many schools now permit too many of their students to opt out of foreign languages, and we often interpret their choice as evidence of inability. It isn't. Young children, since they are not so self-conscious as adolescents, are in many ways the best language students, and elementary and intermediate schools have lately demonstrated an increasing interest in teaching languages. The *James Madison High School* curriculum allows for previous instruction by offering advanced levels in each language. When students reach high school, they should enroll in the appropriate level. Or they may decide to switch and take an introductory course in a new language.

Many schools will want to teach the most popular European languages: French, Spanish, and/or German. Some will also want to offer one or more of the classical languages, for their beauty and precision, for their immeasurable contribution to our own language and civilization, and not least for the remarkable sense of self-worth that they tend to give their students. But there is no reason why local districts should not teach Russian instead of German, Chinese instead of Italian, or Greek instead of Latin. The choice of which languages to offer is clearly a matter for local decision. And, of course, it will not be absolutely necessary — or possible — for all school districts to offer courses in more than one or two foreign languages.

Curricular Excellence: A Profile

Portland High School Portland, Maine

Open since 1821, Portland High School is the second oldest secondary school in the United States. It is also one of the best. The school is located in the center of Maine's largest city, serving 1,150 students whom Assistant Principal Mary Jane McCalmon calls "a microcosm of the urban population." Some of Portland High's students come from affluent families and a large number are middle class, but nearly half qualify for the school lunch program. The student body is a mix of white, black, Hispanic, and Asian, and a number are recent refugees from various foreign countries.

Portland High School has earned national recognition for its excellence. In a businesslike atmosphere of quiet order and purpose, Portland High's administration and faculty provide their diverse students every educational opportunity. Daily attendance and graduation rates are better than 90 percent. An impressive number of students go on to college. "We are a proud school," says McCalmon.

Portland High is especially proud of its curriculum. To graduate, all students must take four years of English, three years each of social studies and math, two years of science, one year each of physical education and fine arts, and a semester of classroom health instruction. Better than 99 percent of all students exceed these requirements before graduating. Honors or Advanced Placement classes are offered in all major subject areas, and about 20 percent of Portland students take one or more of them. Distinctive supplemental and elective courses abound, but the school has an especially strong foreign language program, with classes in French, Spanish, German, Chinese, Russian, Latin, and Greek.

Provision is made for the different abilities and interests of Portland's students by division of the curriculum into appropriate skill levels and programs. But placement is course-by-course and extremely flexible. On occasion, students may even enroll in more difficult courses than the school recommends. "We feel students have the right to try a more difficult course level," McCalmon says. "If a student wants to reach, we're not going to get in the way."

Whatever their abilities or future plans, all Portland students follow a program with one bottom line: content. All freshmen take an English class that introduces them to literature and gives them a strong dose

of instruction and practice in writing. Similarly, all students take a three-year Western civilization and American history sequence, the goals of which closely parallel those of *James Madison High School*. Whoever they are, Portland students — including those in vocational training, whose studies may take them out of the school's main building for half the school day during their junior and senior years — must satisfy Portland High School's core requirements.

Fine Arts

Art History

An analytic study of representative masterpieces from key periods in the history of Western art, including classical Greece and Rome, Gothic architecture, the Renaissance, and the Baroque, Neoclassic, Romantic, Realist, Impressionist, Postimpressionist, and Modern periods. Where appropriate, American developments are highlighted. Focus is on recognition and appreciation of elements of design in painting, architecture, and sculpture, and on the relation of artistic style to larger historical and cultural themes. *One semester, required.*

Music History

An analytic study of representative masterpieces from dominant trends and periods in the history of Western music, from early religious and secular traditions through the Renaissance, Baroque, Classical, Romantic, and post-Romantic periods. Where appropriate, American developments (e.g., jazz) are highlighted. Focus is on recognition and appreciation of selected musical forms (e.g., sonata-allegro, the symphony, opera, and fugue), with an introduction to compositional elements like instrumentation, rhythm, and harmony and counterpoint. *One semester, required.*

Secondary school students should study art and music for the same reasons they study history and literature. Great works of Western art and music form an incomparable record of our past. In an indelible and vivid way, they give us insights into our heritage, our traditions, and our civilization. They also help refine our sensibilities. They let us look at human nature through the eyes of master observers, and thus help us to see what we look at, hear what we listen to, and feel what we touch.

Currently, only 15 states require all their high school students to take a course in fine arts. And many of these states allow classes in the practice of art to satisfy their requirements. Studio arts, drama, and vocal and instrumental music are valuable and appropriate student pursuits; many secondary schools will want to offer them for credit as elective classes, or as noncredit extracurricular activities. But such activities are no substitute for a solid grounding in the history of art and music.

The *James Madison High School* program requires all students to take one-semester courses in the history of both Western music and the visual arts. The music syllabus features recordings of musical master-

pieces and encourages familiarity with the styles of representative composers. Likewise, the art syllabus involves analysis of selected great paintings, buildings, and statuary. These courses may be taken in any order and need not be pursued in the same year.

Curricular Excellence: A Profile

Xavier Prep School New Orleans, Louisiana

Many of Xavier Prep's 495 students — all black girls — come from disadvantaged homes. More than a third of them live with only one parent and almost that many are on public assistance. But the little school on the river side of Magazine Street in New Orleans knows what to do. Founded and operated by the Sisters of the Blessed Sacrament, and staffed by an extraordinary group of sisters, laymen, and laywomen, Xavier has a 72-year history of providing educational excellence and opportunity to black children. The school's president, Sister Eileen Sullivan, has a simple message for her students: "You need an education."

They get one at Xavier. It's done with a carefully planned and unashamedly traditional core curriculum: four years each of English, mathematics, and religious studies; three years each of social studies and science; at least two years of foreign language (and three for most students); and a half-year each of art, music, and computer science.

The program is tough: passing grades are withheld from students who fail to master elements of grammar and composition. And course work is serious and extensive. English department reading lists for example — which require hundreds of pages even over summer holidays — are as broad and deep as those at any school in the country. Students in 9th and 10th grade jump head-first into literature, studying Greek and Roman mythology, and works like Shakespeare's *Julius Caesar*, Dickens' *A Tale of Two Cities*, Joseph Conrad's *The Secret Sharer*, and Tolstoy's *Master and Man*. Juniors concentrate on American literature, reading everything from Benjamin Franklin, Washington Irving, and Nathaniel Hawthorne, to William Faulkner, Ernest Hemingway, and the writers of the Harlem Renaissance. And senior year is devoted to a survey of British literature, from *Beowulf* through modern short stories, novels, poetry, and drama.

At Xavier, such sustained hard work is a fact of everyday life. Daily attendance is 98 percent. All students take either the SAT or ACT college entrance examinations, and honors students take both. An astounding 92 percent of Xavier students go on to higher education.

Sister Sullivan knows that her school's academic curriculum is just what its students need. "Parents want their children educated," she says. "They send them here so they will get pushed. The only way

for them is education. You have to remind them of that from time to time, because they're kids. But they want to achieve." At Xavier, they do.

Physical Education/Health

Physical Education/Health (9th and 10th grades)

Students participate in team and individual sports. Emphasis is on fitness, coordination, and sportsmanship. One quarter of each year's class is devoted to health education, which over the two-year period covers nutrition and first aid (e.g., cardiopulmonary resuscitation and the Heimlich maneuver), instruction about the dangers of alcohol and drugs, and sex education. *Two years required.*

The *James Madison High School* program requires students to take physical education and classroom health instruction during their freshman and sophomore years. Three quarters each year are devoted to gym, and the remaining quarter is given to health.

Because students do not escape the need for regular exercise when they complete 10th grade, proper physical education must encourage a lifelong pursuit of fitness. Organized physical activity improves a student's concentration and health. And intramural and interscholastic athletics teach students the importance of teamwork and sportsmanship, and of winning or losing with grace and equanimity. All schools should offer students continued classroom or extracurricular opportunities to participate in sports and exercise, beyond those required as a minimum in *James Madison High School*.

Classroom health instruction is no less important; it can help save lives. Today, most of our high school students get their only reliable information about the dangers of drugs and alcohol in health classes. It is therefore imperative that high school health instruction be forthrightly anti-drug and supportive of good character and respect for law.

Classroom sex education should provide all relevant basic information about biology and physiology — the “facts of life” — in an open, serious, and moral context, emphasizing restraint and the importance of the family.

Curricular Excellence: A Profile

Wayland High School Wayland, Massachusetts

The fans roared as nine Wayland High School students assumed their place in the winners' circle to accept the gold medal. These students had just shown they were the best in the state — not in football or basketball or volleyball, but in learning. Wayland High, located in a Boston suburb with a population of 13,000, is the reigning Massachusetts state champion in the U.S. Academic Decathlon, and ranks fifth in the country. It's no wonder that *Boston Magazine* has called Wayland "an academic powerhouse."

Excellence is the rule at Wayland, not an exception. Last year, on the Massachusetts Assessment of Educational Progress, the state's standardized achievement test, Wayland ranked first among all public high schools. Daily attendance is high, and dropouts are an extreme rarity. Ninety-five percent of the class of 1987 went on to college. But that's no surprise to the school's administration. "Attending a good 4-year college is the norm at Wayland," says principal Sharon Hennessy.

Wayland's demanding curriculum gives its 701 students a firm foundation in all core disciplines, and its depth and rigor have helped the school triumph in the Decathlon. Though the local district requires four years of English, three years of social studies, and two years each of math and science, almost all students at Wayland do more than they are asked. Better than 80 percent take three years of math, 65 percent take four years of social studies, and 60 percent take three or more years of foreign language. The school's extensive honors and advanced placement program enrolls about 60 percent of Wayland students. And all students follow a four-year comprehensive sequence of literature and writing in English, and a three-year sequence of world history, geography, and American history in social studies.

Wayland's standout program is its unusual classical studies department, which offers five years of Latin, and courses in classical, medieval, and Renaissance literature; archaeology; and the history of the Near East, ancient Greece, and Rome. Students in Latin II and III read Caesar's *Commentaries*, Ovid's *Metamorphoses*, Plautus' *Miles Gloriosus*, and poetry by Quintus Ennius and Horace. Latin IV is devoted to a year-long study of Virgil's *Aeneid*. The medieval and Renaissance literature course covers works of Dante, Boccaccio, Chaucer, and Machiavelli. To add an atmosphere of authenticity, Wayland's Latin teacher, Frank

Smith, comes to class every day in black academic robes. "There is no doubt we have a real commitment to the classics," says Dr. Hennessy.

The long-standing support of the Wayland community has been key to their high school's success. "Our community has an unbelievable commitment to our schools," Dr. Hennessy says. "They not only support but actually demand excellence in education."

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